

CLAIMS

I claim:

1. A method for mapping a DICOM-SR document into an XML document, comprising:
mapping each DICOM attribute of a plurality of DICOM attributes in the DICOM-SR
5 document into a corresponding XML element of a plurality of XML elements,
outputting each XML element of the plurality of XML elements to the XML document,
in a format that conforms to an XML document-type-definition of the XML document.

2. The method of claim 1, wherein
10 outputting each XML element includes
formatting the XML element via one or more XSLT templates to conform to the
XML document-type-definition.

3. The method of claim 2, wherein
15 the formatting of the XML element is via an XSLT engine.

4. The method of claim 2, wherein
the one or more XSLT templates correspond to one or more DICOM Information
Entities.

5. The method of claim 1, wherein
20 the mapping of each DICOM attribute into a corresponding XML element is independent
of the XML document-type-definition of the XML document.

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6. The method of claim 1, further including

parsing each DICOM attribute to segregate a DICOM data type, and a DICOM codeID
from the DICOM attribute, and

wherein

5 the mapping includes:

assigning the DICOM codeID to a first attribute of the corresponding XML
element,

mapping the DICOM data type to a corresponding value type of the
corresponding XML element, and

10 assigning the corresponding value type to a second attribute of the corresponding
XML element.

7. The method of claim 6, further including

parsing the DICOM attribute to segregate a DICOM attribute value, and

15 wherein

the mapping further includes

assigning the DICOM attribute value to a third attribute of the corresponding
XML element.

8. A DICOM to XML conversion system that comprises:

a DICOM parser that is configured to provide a plurality of DICOM attributes from a DICOM data file,

an XML formatter, operably coupled to the DICOM parser, that is configured to provide a plurality of XML elements corresponding to the plurality of DICOM attributes.

9. The DICOM to XML conversion system of claim 8, wherein

the XML formatter is configured to provide the plurality of XML elements in a format that conforms to an XML document-type-definition of an XML document comprising the plurality of XML elements.

10. The DICOM to XML conversion system of claim 9, wherein

the XML formatter includes an XSLT engine that is configured to provide the plurality of XML elements based on one or more XSLT stylesheet templates that conform to the XML document-type-definition.

11. The DICOM to XML conversion system of claim 10, wherein

the one or more XSLT stylesheet templates correspond to one or more DICOM Information Entities.

12. The DICOM to XML conversion system of claim 9, further including

an XML builder, operably coupled between the DICOM parser and the XML formatter, that is configured to effect a direct mapping of each DICOM attribute of the plurality of DICOM attributes into a corresponding XML element of the plurality of XML elements independent of the XML document-type-definition.

13. The DICOM to XML conversion system of claim 12, wherein
the DICOM parser is configured to parse each DICOM attribute to provide a DICOM
data type, and a DICOM codeID from the DICOM attribute, and
the XML builder is configured to:

5 assign the DICOM codeID to a first attribute of the corresponding XML element,
map the DICOM data type to a corresponding value type of the corresponding
XML element, and
assign the corresponding value type to a second attribute of the corresponding
XML element.

10 14. The DICOM to XML conversion system of claim 13, wherein
the DICOM parser is further configured to parse each DICOM attribute to provide a
DICOM attribute value, and
the XML builder is further configured to
15 assign the DICOM attribute value to a third attribute of the corresponding XML
element.